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**Failure Analysis of Transmission System Elements:  
Methodology and Case Histories**

7. Author(s)

**A.C. Raghuram, S. Radhakrishnan, R.V. Krishnan and V. Ramachandran**

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15. Abstract

Power transmission elements such as shafts, cranks, pistons, gears etc. fail during service for various reasons. The consequences of such failures in modern industries are many. Failure analysis becomes particularly important for better reliability and safety. The common causes of service failures and the methodology of failure analysis are described in this document, along with an account of a number of cases of failures investigated at the National Aeronautical Laboratory.